

Information Paper

SUBJECT: Joint Biological Agent and Identification Diagnostics System (JBAIDS)

1. Background: The JBAIDS is a reusable, portable, modifiable biological agent identification (surveillance) and diagnostic system that will be used to support operational forces through multiple levels of health service support. JBAIDS is capable of simultaneous reliable identification of multiple biological warfare agents and other biological agents of clinical significance/operational concern. It will be used by the United States Joint Services (Army, Navy, Air Force, Marine Corps), and other federal agencies. JBAIDS will enhance force protection by providing company commanders and medical personnel information to aid in determining the appropriate response (effective preventive measures and battlefield maneuvers, prophylaxis and medical treatment) to the presence of biological agents. US Food and Drug Administration (FDA) clearance for use in diagnosing anthrax has been obtained, and will be sought for the other diseases for which JBAIDS assays were developed. The JBAIDS is developed to utilize a Block up-grade strategy to leverage rapidly developing technologies in the diagnostic capabilities arena, which supports an evolutionary acquisitions strategy (spiral development). Below are the systems characteristics at each block:

Block I

- The JBAIDS Block I system is based on commercial-off-the-shelf (COTS) technology, requiring limited modification to the hardware platform to meet militarized performance specification requirements. It is intended for use in deployable, fixed site and shipboard medical facilities, such as Combat Support Hospitals (CSH), Area Medical Labs (AML), Expeditionary Medical Support (EMEDS) facilities, Naval Environmental Preventive Medicine Units (NEPMU), research facilities and hospitals. It consists of a polymerase chain reaction (PCR) hardware platform with associated software, assays and sample preparation protocols. It is a laboratory tabletop instrument used by medical laboratory personnel capable of confirming the identity of 16 DNA targets related to the ten biological disease agents as identified in the Joint Operational Requirements Document (JORD) in less than 40 minutes. Block I is fully funded.

Block II

Block II was to add the capability of identifying at least five toxins listed in the JORD and was also envisioned to be a COTS development effort. However, the Block II program was deferred due to a lack of well-defined requirements regarding toxin levels in clinical specimens.

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Block III

The intent of Block III—Next Generation Diagnostics—is to establish a new system incorporating the capabilities of Block I and adding the ability to identify up to 50 additional agents and toxins using automated, integrated sample preparation, and it will be reduced in size. It will be interoperable with early warning and reporting systems. It will be intended for use further forward in the theater of operation than the Block I system is currently used. Block III program initiation is planned for FY10/11.

2. Facts:

a. In a memorandum dated 25 August 2004, Chemical Biological Medical Systems (CBMS) Joint Project Management Office requested USAMMA to become the sustainment item manager for the JBAIDS program.

b. Final draft of Memorandum of Agreement (MOA) between CBMS and USAMMA outlining item manager responsibilities currently under review. New changes are that USAMMA will manage the ASIOE sets but will not build them or field JBAIDS systems.

c. Final draft of USAMMA's Integrated Logistic Support Assessment in Support of Full Materiel Release for JBAIDS currently under review at USAMMA. Assessment supports the full materiel release for the Full Operational Capability fielding for the system:

- (1) Air Force = 98 (currently fielding)
- (2) Army = 86 (expected fielding Apr 07)
- (3) Navy/Marines = 70 (expected fielding Oct 07)

3. POC for this action is USAMMA's Materiel Acquisition Directorate/Medical Scientific Division (MCMR-MMO-AL).

Medical Scientific Division
Materiel Acquisition Directorate

